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PATENT & TRADEMARK OFFICE

Reply to the Office communication of the Examiner

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Examiner PHILIP J. BONZELL

Application No. 10/656,179

Title: High Speed Airship

Applicant: Imre Nagy

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Dear Mr. Bonzell;

Please find

1 page cover

4 pages of reply

5 pages of Replacement Sheets

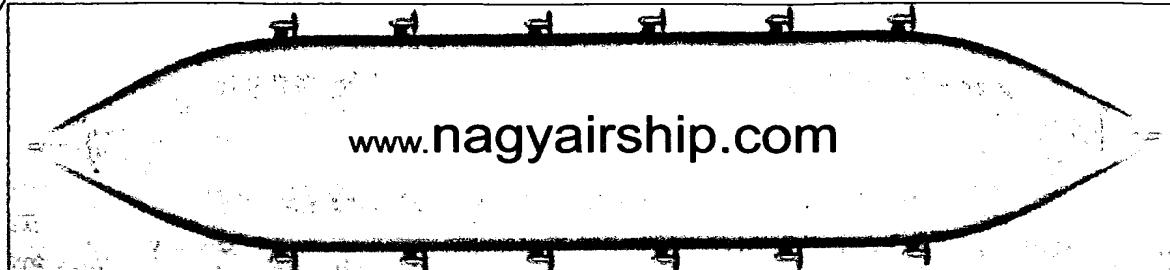
1 page of information

Thank you for your help over the phone.

Since I'm in Hungary for a longer period of time, some times getting my letters is taking to long. If it possible to e-mail me the copy of the communication, or if that is not possible, just a notice of communication so I can make arrangement, it will help me lot, and I'm appreciate. If you have any question, please do not hesitate to e-mail me.

Sincerely,

Imre Nagy



NAGY High Speed Airship - The Ultimate Vehicle

After the most extensive research into airship designs, I needed to find the way to pinpoint the problem that caused all rigid airship disasters. By comparing their technical datas, to a reliable modern aircraft, the BOEING 747, I had come to a stunning discovery:

Rigid airships were the biggest Engineering-Disasters and never learn from it.

The BOEING 747's body volume is 32,000 cubic feet; its weight is 150 Ton. The HINDENBURG's body volume was 10 million cubic feet, hydrogen volume was 7 million cubic feet creating 483,000 pounds lift and could carry 50 passengers only (3 million cubic feet taken by the rigid structure). The BOEING 747 32,000 cubic feet body volume of helium could create only 2,200 pounds of lift. That is not possible to build the BOEING 747 to be as light as a passenger car, this information clearly shows that:

Rigid airships can not be built strong enough to be safe and to be Lighter-Than-Air.

My invention and design is dictated by:

- the knowledge from my airship research
- the knowledge of stronger-than-steel rip-stop fabrics
- the knowledge of designing inflated structures

I do not invent the concept of the airship, I invent **THE ONLY WAY** to build 100% safe, reliable, economical, airships.

1. **The inflated body** made of stronger-than-steel, rip-stop fabrics.
Guarantees: to have stronger-than-steel, rigid but flexible, **indestructible body** as well as the lightest.
Guarantees: to have the **highest payload** by volume of any airship, and to be Lighter-Than-Air. A Hindenburg size airship with my design can carry 400,000 pounds of payload about 2,200 passengers instead of 50 passengers.
2. **The large number of independent helium chambers** guarantees to have **100% safety**.
The airship can not crash like an airplane or rigid airship, even if some of its chambers get deflated.
3. **The computer controlled helium recovery and pressurization system** guarantees:
Rapid control of the helium volume and operating pressure at the operating altitude to the 10% of the tensile strength of the fabrics to **eliminate pressure-heights and ballast**. (The operating pressure is **0.015 PSI** for a **Hindenburg size diameter airship**.)
4. **By placing the passenger compartment into the center of the airship** Guarantees:
To have the **largest possible compartment** and makes it possible to **land on water also**.
5. **Its large number of propulsion units** that can be positioned to any point of a 360 degree circle:
Guarantees: **absolute and rapid control of speed, direction, altitude, balance, and buoyancy by power**.

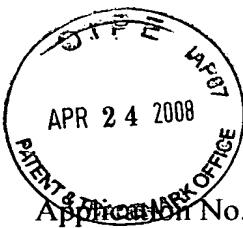
My design is the most innovative because I use:

- **different shape** that nobody uses, the highly aerodynamic **cone shape** front and aft end
- **different structure** that nobody uses the **inflated structure** (not the rigid, semi rigid or single chamber)
- **different material** that nobody uses **stronger-than- steel rip-stop fabrics** 98% of the body (not in composite)
- **different manufacturing method** that nobody uses, the less expensive and fastest **sewing** (instead of metal welding or composite)

I hope this information help to see the point of my invention.

Imre Nagy

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Detailed Action

1. Please find the *Replacement Sheet* of the page 1 background of the invention.
2. The Drawings. (No drawings needed because I accepted the rejection of claim 7.)
3. Claim 7 rejected. I accept the rejection of claim 7. Because cargo attachments are common knowledge.
4. Claim 7 rejected.
5. Claim 7 rejected
6. a. US patent 2,428,656 teaches „*Multiple inflatable and dilatable chambers*”
„*The main gas bags are positioned between the frame members of figure 17*”

This gas bags are **inflated with helium only or deflated**, but do not needed to be **pressurized continuously**, and **do not support each other**.

My claim 1 a. „*Longitudinal multiple inflatable chambers arranged in a multiple tubular cluster to support each other*” To **eliminate the rigid frame** by an **inflated structure**.

My highly innovative design is **the only way to build**:

- **The strongest indestructible inflated structure airship body:**
by using **stronger-than -steel rip-stop fabrics**.
- **The lightest airship body to have the highest payload by volume of any airship:**
by eliminating the rigid structure and the weight of the rigid structure,
- **The most economic airship:** by eliminating the construction costs of the rigid structure.
- **The highest passenger safety airship** by placing the passenger compartment in the center of the inflated body, the inflated structure around the passenger compartment create a „**safety airbag**” around the passenger compartment to cushion the passenger compartment in case of an emergency landing, and because **the inflated structure do not crash like a rigid structure**, can not crash on the passengers, and make it possible
- **To land on water also.**

My claim 2. Teaches „*the multiple inflatable chambers are divided into multiple longitudinal sections*”

My claim 3. Teaches „*all the sections of having multiple inner tubes, one inner tube reserved to contain helium while the other inner tube reserved to contain air*”

My highly innovative design makes it possible:

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- To make the **lightest indestructible inflated structure** and **to control the buoyancy at the same time** by inflating each section with the needed amount of helium and air at the same time without mixing the helium with air and keep it pressurized to the operating pressure at the operating altitude to **eliminate the pressure heights also**.

b. US 2,428,656 teaches „*a rigid tunnel underneath the chambers run across the entire bottom of the airship*”

It has no center cabin, in case of an emergency landing **the entire rigid structure crashes like an airplane, it can not save passengers**.

US 5,823,468 teaches in figure 3 „*the entire bottom half of the hybrid aircraft is a passenger compartment, having windows on both side and at the front*”.

Since rigid frame hybrid aircrafts are not lighter-than-air, crash like an airplane, in case of an emergency landing the entire **rigid structure crashes on the passengers**.

US 6,328,257 teaches in figure 3 „*Two floor of passenger decks located at the upper third of the lower half of the hull, taking by the entire cross section all the way to one side to the other, from the front to the aft of the rigid airship*”.

The passenger decks are not a tunnel in the center but even if it would not save the passengers, because this is a **rigid airship the rigid structure crash like an airplane, on the top of the passengers**.

My claim 1 a. „*and to create a centrally located tunnel for passengers or cargo*”

- **To increase passenger safety**, the inflated structure around the centrally located passenger compartment is like a **safety air bag all around**, and make it possible to **safely land on water also**.

- To have the safest and largest possible passenger or cargo compartment from **indestructible inflated fabrics structure** with out the **costs and weight of a rigid structure or external cabin**.

If someone of ordinary skill in the art look at my drawings can tell that my design is dictated by the rules of designing an inflated structure. **There is no other way** to design an inflated structure to **eliminate the rigid structure**, and to have the **largest possible passenger compartment** in the center of the airship, **without the costs and weight** of the rigid structure, **increase passenger safety** to the highest level, and make it possible to **land on water also**.

My claim 1 b. „*A conical shape rigid frame cabin attached to the front and aft end of the passenger or cargo tunnel*”

That cabin is an integrated part of the highly aerodynamic airship body

- **To enclose the passenger or cargo compartment in the center of the inflated structure,**
- **To contains cockpit, passenger or cargo doors.**

I did not claim viewing area

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d. US 2,428,656 teaches in figure 11 „*Multiple propulsion units rotateable mounted on the lower side of the cabin that the tip of the propellers tip are at the bottom of the cabin, under the airship body, in order to change the angular relation of the propeller shafts may be positioned in such relation to the airship as to propel it*”

It does not claim that each unit can be rotated **independently**, and the propellers are positioned to low at landing they can hit the ground get damaged, not to mention the danger they represent for the ground crew or passengers.

My claim 1 c. „*Multiple propulsion units attached to both side of the airship with a pivoting mechanism, and each propulsion unit can be independently rotated into any position of the 360 degree circle*”

To have absolute and rapid control of speed, direction, altitude, balance and buoyancy by all the power of the propulsion units.

US 2,428,656 teaches in figure 11 „*the power plant that drives the propellers are inside the cabin and using drive shafts and gear boxes to power the propellers.*”

My Figure 1 teaches „*each propulsion unit contains engine and propeller.*”

To eliminate the power drive mechanism, it costs, weight and problems.

To have the lightest, less expensive and less problem propulsion unit.

e. and f. US 2,428,656 Claim 2, and 3. figure 7 talking about „*longitudinal air passages to circulating hot air in this passages along the gas bags to increase buoyancy*”

This passages can not be used for passenger compartment because they are to small, not to mention circulating hot air between the passengers.

Column 9, line 26 teaches the use of „*helium and circulated hot air to control buoyancy*”

My claim 3. teaches „*all the independent sections having multiple inner tubes, one inner tube reserved to contain helium the other inner tube reserved to contain air (not hot air)*”

To keep all the sections **always pressurized** to the operating pressure at the operating altitude, to keep the inflated structure continuously at the operating **rigidity** no matter how much helium is in or no helium at al in the inner tube for helium, to **control buoyancy**, and to **eliminate pressure heights also**.

My primary balance and buoyancy is controlled by the volume of helium, emergency rapid control is with the power of the propulsion units.

g. Claim 6 can be rejected, because pumping mechanism and containers are common knowledge.

h. Claim 4 and 5 „*having passenger and cargo elevators*” are rejected from the claims.

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i. Claim 7 rejected.

8. The prior art is now correct because the rejection of the cargo anchoring attachment and passenger and cargo elevators.

Conclusion

Everything in my invention is dictated and based on:

- my knowledge from my airship research.
- my knowledge of stronger-than-steel rip-stop fabrics.
- my knowledge of designing inflated structures.
- my knowledge of designing pressurized structures.

My invention is the most innovative and advanced because it has everything distinctive the:

- **different shape** that nobody has, the highly aerodynamic **cone shape** for higher speed with less power, less fuel consumption, less air pollution.
- **different structure** that nobody has, the indestructible **inflated structure** that bounce back to its original shape like a giant football, and make it possible to land on water
- **different material** that nobody use for structural material the **stronger-than-steel rip-stop** fabrics to increase payload up to 70% of the total lift of the helium.
- **different construction** that nobody has, **the large number of independent chambers** to highly increase passenger safety.
- **different manufacturing method** that nobody uses, the less expensive and fastest **sewing**.

One of the differences would be enough to get a patent over the same design, I have them all.

This information clearly proves that my design is the only way to construct the safest, fastest, lightest, highest payload, most economical and environment friendly airship.